APRIL/MAY 2024

## CABC42/FABC42 — MICROBIOLOGY–II



Time : Three hours Maximum : 75 marks

SECTION A — (10 × 2 = 20 marks)

Answer ALL questions.

1. What is the importance of microorganisms found in soil?

2. Explain phosphate solubilisation.

3. Define filtration.

4. Compare the biological methods used in sewage treatment.

5. What is fermentation?

6. Demonstrate the role of microbes in cheese making.

7. Name the organism used in production of penicillin.

8. Explain bioremediation.

9. Define infection.

10. Show the virulence factors of HIV.

SECTION B — (5 × 5 = 25 marks)

Answer ALL questions.

11. (a) Identify the role of microbes in soil formation.

Or

(b) Analyse the mode of transmission of plant diseases and methods to control the same.

12. (a) Identify the physical methods used in the treatment of sewage.

Or

(b) Examine the carbon cycle and list its benefits.

13. (a) Identify the food borne diseases caused by fungi.

Or

(b) Analyse the types of pasteurisation and its uses.



14. (a) Construct a flow chart showing the application of microbes in ethanol production.

Or

(b) Examine the steps involved in the production of wine.

15. (a) Identify the virulence factors, lab diagnosis and methods of preventing Hepatitis B.

Or

(b) Analyse the virulence factors, lab diagnosis and methods of Rabies prevention.

SECTION C — (3 × 10 = 30 marks)

Answer any THREE questions.

16. Explain the methods of transmission of plant diseases and assess the role of biopesticides in preventing the same.

17. Justify the role of biogeochemical cycles in the preservation and restoration of the environment.

18. Evaluate the different types of techniques used in food preservation.

19. Elaborate on the steps involved in SCP production and its applications.

20. Compile the details of morphology, culture characteristics, virulence factors and diagnostic test for Vibrio cholerae.

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